

REMARKS

Claims 1-20 are pending. The specification is amended to obviate informalities raised in the Office Action. No new matter is submitted. Accordingly, entry of the Amendment and prompt allowance of claims 1-20 is respectfully requested.

Applicants appreciate the indication of claims 1-20 as allowable in item 3 of the Office Action, provided the “Group IVA” nomenclature used in the specification is clarified. By this Amendment, the specification has been amended at paragraphs [0010] and [0043] to clarify that the “Group IVA” nomenclature refers to “IUPAC Group IVA notation”. In paragraph [0010], which is the first occurrence of any reference to Group IVA in the specification, the IUPAC Group IVA nomenclature is further clarified by expressing that it “includes, for example, titanium, zirconium and hafnium”. A copy of a Periodic Table evidencing the IUPAC Group IVA notation as clarified in the Office Action is attached hereto for the Examiner’s convenience. Since the objection to the nomenclature has been clarified as requested in the Office Action, the allowance of claims 1-20 is respectfully requested.

In item 1 of the Office Action, the specification is objected to for failing to clarify the “Group IVA” nomenclature as discussed above. Likewise, in item 2 of the Office Action, claims 1-20 are objected to for failing to clarify the “Group IVA” nomenclature as discussed above. This Amendment clarifies the cited nomenclature and thus obviates the objections to the specification and claims in this regard. Further, the Amendment to paragraph [0007] corrects the informality cited in item 1 of the Office Action. Thus, all objections to the specification and claims having been obviated, withdrawal of all objections cited in the Office Action is respectfully requested.

Further, prompt allowance of claims 1-20 is respectfully solicited as Applicants submit that the claims patentably distinguish over the cited art for at least the reasons cited in the Office Action and pose no 35 U.S.C. §112 issues.

Should the Examiner determine that anything further is desirable to place this application in even better form for allowance, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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Attachments:
Periodic Table with IUPAC notation

LSS/DJC/jam



Catalytica Studies Division

New notation →
Previous IUPAC form →
CAS version →

| 1 IA | 2 IIA | 3 IIIA | 4 IVA | 5 VA | 6 VIA | 7 VIIA | 8 VIII | 9 VIII | 10 VIII | 11 IB | 12 IIB | 13 IIIA | 14 IIIA | 15 VA | 16 VIA | 17 VIIA | 18 VIII A |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1 H 1.00794 | 2 He 4.00260 | 3 Li 6.941 | 4 Be 9.01218 | 5 B 10.81 | 6 C 12.011 | 7 N 14.0067 | 8 O 15.9994 | 9 F 18.9984 | 10 Ne 20.179 | 11 Na 22.98976 | 12 Mg 24.305 | 13 Al 26.9815 | 14 Si 28.0855 | 15 P 30.9738 | 16 S 32.06 | 17 Cl 35.453 | 18 Ar 39.948 |
| 19 K 39.0983 | 20 Ca 40.08 | 21 Sc 44.9559 | 22 Ti 47.88 | 23 V 50.9415 | 24 Cr 51.996 | 25 Mn 54.9380 | 26 Fe 55.847 | 27 Co 58.9332 | 28 Ni 58.69 | 29 Cu 63.546 | 30 Zn 65.39 | 31 Ga 69.72 | 32 Ge 72.59 | 33 As 74.9216 | 34 Se 78.96 | 35 Br 79.904 | 36 Kr 83.80 |
| 37 Rb 85.4678 | 38 Sr 87.62 | 39 Y 88.9059 | 40 Zr 91.224 | 41 Nb 92.9064 | 42 Mo 95.94 | 43 Tc (98) | 44 Ru 101.07 | 45 Rh 102.906 | 46 Pd 106.42 | 47 Ag 107.868 | 48 Cd 112.41 | 49 In 114.82 | 50 Sn 118.71 | 51 Sb 121.75 | 52 Te 127.60 | 53 I 126.905 | 54 Xe 131.29 |
| 55 Cs 132.905 | 56 Ba 137.33 | 57 La 138.906 | 58 Ce 140.12 | 59 Pr 140.908 | 60 Nd 144.24 | 61 Pm (145) | 62 Sm 150.36 | 63 Eu 151.96 | 64 Gd 157.25 | 65 Tb 158.925 | 66 Dy 162.50 | 67 Ho 164.930 | 68 Er 167.26 | 69 Tm 168.934 | 70 Yb 173.04 | 71 Lu 174.967 | 72 Ti 78.8 |
| 87 Fr (223) | 88 Ra 226.025 | 89 Ac 227.028 | 90 Th 232.038 | 91 Pa 231.036 | 92 U 238.029 | 93 Np 237.048 | 94 Pu (244) | 95 Am (243) | 96 Cm (247) | 97 Bk (247) | 98 Cf (251) | 99 Es (252) | 100 Fm (257) | 101 Md (258) | 102 No (259) | 103 Lr (260) | 104 Unq (261) |
| 101 Md (258) | 102 No (259) | 103 Lr (260) | 104 Unq (261) | 105 Unp (262) | 106 Unh (263) | 107 Uns (264) | 108 Uub (265) | 109 Uut (266) | 110 Uuq (267) | 111 Uub (268) | 112 Uut (269) | 113 Uuq (270) | 114 Uub (271) | 115 Uut (272) | 116 Uuq (273) | 117 Uub (274) | 118 Uut (275) |

Numbers in parentheses: available radioactive isotope of longest half-life.

*Lanthanides

**Actinides

KEY

← Atomic Number
← Symbol
← 1983 Atomic Weight

Conversion Factors

| | | | | | | |
|-------------------|---|---------------------------|---|--------------|---|---|
| 1 atm | = | 101.325 kPa | = | 14.69595 psi | = | 1.01325 bar |
| 1 inch water | = | 249.089 Pa | | | | 1 mm Hg = 133.3224 Pa |
| 1 Btu | = | 251.996 cal | = | 1055.056 J | | 1 kcal = 4.1868 kJ |
| 1 ft ³ | = | 0.02831685 m ³ | | | | 1 in ³ = 16.387064 cm ³ |
| 1 μm | = | 10000 Å | | 1 nm | = | 10 Å |
| 1 ft | = | 0.3048 m | | 1 km | = | 3280.840 ft |
| 1 lb (avoir.) | = | 0.45359237 kg | | | | 1 mile = 1609.344 m |
| | | | | | | 1 mil = 0.0254 mm |
| | | | | | | 1 watt = 3.41214 Btu/h |

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